

Use and misuse of antimicrobial agents in Flemish racing pigeons

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ABSTRACT

Antimicrobial resistance (AMR) has generally been recognized as an increasing problem in both human and veterinary medicine. The aim of this study was to monitor the antimicrobial usage (AMU) in racing pigeons in Flanders. Therefore, the AMU of randomly selected 35 pigeon fanciers was assessed during the period of the 2017 racing season (May-September). Pigeon fanciers were asked to keep all packages of administered medicines and additives in a box during this period. Subsequently, data was collected by discussing the content of the box with the pigeon fancier and a questionnaire during a home visit. Data was successfully collected from 29 pigeon fanciers (5 non-responders, 1 incomplete data). 72.4% of the owners indicated that sometimes their pigeons end up in the consumption chain. The treatment incidence with antibacterial agents was 9.5 ± 11.9 , 6.4 ± 9.2 , 10.4 ± 11.3 , and 1.1 ± 2.6 days out of 100 (TD100), in widowhood pigeons, partners of widowhood pigeons, young pigeons, and breeders, respectively. Treatment incidence with anti-protozoal agents was 6.9 ± 8.3 , 6.0 ± 7.7 , 6.0 ± 7.0 , and 1.0 ± 1.8 days out of 100 (TD100), in widowhood pigeons, partners of widowhood pigeons, young pigeons, and breeders, respectively. TD100 values were the highest for tetracyclines, nitroimidazoles, sulphonamides, and trimethoprim. Remarkably, 37.9% of the pigeon fanciers bought at least one antimicrobial product on the internet, 17.2% of them bought sometimes antimicrobials abroad, and 6.9% received sometimes antimicrobials from the pharmacy or physician without a prescription of the veterinarian. Therefore, AMU monitoring and AMR awareness creation programs to improve the misuse of antimicrobial agents are urgently needed.

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